December 16, 2010 NIST Smart Grid Privacy Subgroup Meeting Notes

Minutes by Rebecca Herold

Please send this distribution list any necessary corrections or additions.

Next full group teleconference meeting:

Thursday January 6, 2010 at 11:00am est

Here are my summary notes from the meeting:

1. Team reports
- Privacy Use Cases Team: Christine Hertzog, Smart Grid Library (team lead)
  - Reviewed CPNI info and the history of that, and how it may be applicable to the Smart Grid. CPNI does not provide a formal use case template of its own, but the process and body of work.
  - Working to finalize the template for the use cases. Chris K will go through body of work and identify the issues so we will have a list of issues that provide examples that can be used to identify additional use cases.
  - Next meeting will be in January.
  - Will send out latest template now.
- Third Party Team: Brent Struthers, Neustar (team lead) Amanda reported:
  - Tanya B created a document that discusses the standards for privacy control. Geared toward security requirements, but is incorporating privacy controls into the standards.
  - Waiting until final document comes out to do more.
- PEV Team: Mike Coop, Hey Coop! (team lead) – No Report
- NSTIC Team: Amanda Stallings, Ohio PUC (team lead)
  - Met Friday.
  - Working on questions to ask utilities about how they protect privacy and security. Will send to Duke Energy first.
  - Will meet tomorrow, but not on 24th or 31st.

2. Guest speaker
- Jules Polonetsky introduced Larry Ponemon to discuss his newly released report, "Perceptions about Privacy on the Smart Grid" that was released in December, 2010.
- FPF has been doing a lot of work in CA and the PUC there.
- The report was attached to the meeting agenda.
- Larry P has been doing privacy for many year; truly one of the founding fathers of privacy compliance. Jules met Larry back when Jules was CPO at Double Click, when Larry was the head of the privacy program at PWC.
- Larry: To see actual survey used to create report, Larry will share with our group.
- All data is put into tables at the end of the survey work.
- Sherri Ramsey at AT&T really made the research happen.
- Consumer panel of 26,000 people. Critical to have a representative sample. Used a simple random sampling method to determine who fit certain characteristics. Got 47 states represented.
- Consumers got either a lottery ticket or gift certificate to participate.

- 2 ways of measuring responses. 1,218 responded to survey. After rejections, left 509 people who had requisite level of knowledge. Wanted them to know enough to answer the questions.
- Respondents were responsible for all or part of paying their energy bills.
- 31% did not know what kind of electricity meter was installed. This is of the 509 that were used.
- Discussed the bar charts on pages 4, 5, 6. Bar chart 6 was especially interesting; showed the most concerns.
- Typically #1 concern for privacy is id theft. However, this was not the case in the results of chart 6; it was actually the least of the shown concerns.
- Chart 7 is revealing in showing what is important to those surveyed.
- Table 1 on page 8. Interesting to see what the highest concerns were. Respondents seem to be most worried about how the smart grid's collection of personal information will threaten their personal safety and reveal personal details about their lifestyle.
- Study data was actually collected in July.
- Table 2. Graph 1 is related to Table 2.
- They used the NIST draft report to create a lot of their questions and scenarios.
- Severity multiplier is the combination of two factors. E.g., high level of concern, but low probability results in the severity multiplier.
- The "magic quadrant" (upper right) included:
  - C5. Access to live energy use data reveals in real time where you are in the residence and what you are doing, 81% 79% 64%
  - C6. Malicious use of your smart meter data leads to a number of problems such as targeted home invasions. 80% 85% 68%
  - C7. Combinations of meter data, analyzed for one purpose, reveal unexpected information about you or others in your home.
  - Lowest severity, even though a high concern, is C1 (identity theft)
- Survey was administered through two tables, each with likelihood scales and concern scales.
- Jason: Would people have thought of their concerns on their own if they had not been provided with them?
- Larry: Good question, but this type of survey does not allow for such contextual information that would really not be possible in a survey, but would require an interview.
- Discussed Chart 9
- Discussed Chart 10: most important was Does not collect information beyond that which
- is necessary to bill and maintain service.
- Discussed Chart 11: Consolidates 2 questions in this one graph.
- Rebecca: Was data anonymization or masking defined???
- Larry: For key terms, there is the option for the participant to click for each definition.
- Other high click rate on energy management service.
- Discussed Chart 12: Acceptable uses.
- Jason: was interested in seeing that people were most concerned about consent and government access.
- Larry: Folks in debriefing; concerns about what they do in their homes, with their appliances, etc. they felt it was none of the government's business.
- Interesting that the DoE is giving a lot of grants for energy efficiency, and they need that data.
- Rebecca: Several of the topics we are covering in our privacy group do not appear to have been covered in the survey. For example, PEVs.

- Larry: Version 2 of survey included PEV data, and had those questions, but had to cut them out.
- Rebecca: What was the target time for survey completion by the participants?
- Larry: When a survey is completed too quickly, it could mean people did the survey only to get the payment. A good length is less than 15 min is okay; less than 10 min is ideal.
- Phone surveys are very short; typically less than 5 minutes.
- Benchmarking when in person to do interview can be even a couple of hours.
- Rebecca: Are you planning to do another survey next year, and use this one as a seminal benchmark for determining changes in perceptions? And what about doing more related surveys? E.g., the best ways to do training and awareness of smart grid privacy; this is something we are planning to address in 2011 in our group.
- Larry: Would be pleased to partner on the design of the survey with our group.
- 65% of survey participants are privacy sensitive but don't do anything about it.
- Jason: Can Larry present at GTE and other utilities?
- Larry: Yes, get in touch with him.
- Rebecca: How about sharing smart grid data online? In social media? E.g., tweeting? These are concerns we have. Will be another survey topic?
- Larry: Yes, those would be good to address as well.
- Gail: Another issue is where households have multiple residents, and not all have given consent, just the ones who have paid for the account, the consent issues are problematic.
- Larry: Energy consumption records may be insignificant. When it becomes significant when the data is shared with third parties.
- Gail: Multiple individuals; who is actually doing the activities within a residence? "Bad" activities could be attributed to the wrong individuals.
- Thanks to Larry for speaking with us today!

3. Miscellaneous:
- NOTE: There will be NO MORE full group meetings for the rest of this month/year; no meeting on 12/23 and no meeting on 12/30.
- Happy Holidays!

Thanks,

Rebecca